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EXAMINER

QURESHI, SHABANA

ART UNIT	PAPER NUMBER
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2155

DATE MAILED: 02/10/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/490,981	Applicant(s) RAGHURAMAN ET AL.	
	Examiner Shabana Qureshi	Art Unit 2155	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 October 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 and 24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-22 and 24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 24 January 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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DETAILED ACTION

1. The Action is in response to communication in the form of an RCE filed on October 7, 2004.
2. In response to Affidavit 1.131 filed by Applicant, Examiner applies a new art rejection in the present office action.
3. Claims 1 – 22, and 24 are pending examination.
4. Claim 23 has been cancelled.

Claim Objections

Claim 10 is objected to because of the following informalities: grammatical errors.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) do not apply to the examination of this application as the application being examined was not (1) filed on or after November 29, 2000, or (2) voluntarily published under 35 U.S.C.

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122(b). Therefore, this application is examined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

Claims 1-22 and 24 are rejected under 35 U.S.C. 102(e) as being anticipated by Jackowski et al (U.S. 6,141,686).

As per claim 1, Jackowski et al teach a method of tracing data traffic on a network, the method comprising:

- at the transport layer of a protocol stack residing on a first device in the network (column 9, lines 9-12), detecting a transmission or receipt of data to or from a second device on the network (column 4, lines 58-60, interceptor detects transmission or receipt of packets); and
- in response to the transmission or receipt being detected, recording the transmission or receipt as an entry in a trace log (column 9, lines 3-5, tables of events are stored by consolidator; column 5, lines 26-41, send-complete and receive-complete messages are stored), wherein the trace log is accessible to determine the volume of data traveling over a network (column 5, 55-58; column 11, lines 25-30; column 12, lines 61-67).

As per claim 2, Jackowski et al teach the method of claim 1, wherein the protocol stack is a TCP/IP stack (column 9, lines 9-12).

As per claim 3, Jackowski et al teach the method of claim 1, wherein the detection step further comprises the step of detecting the presence of an input/output packet representing the transmission or receipt (column 4, lines 58-60, interceptor detects transmission or receipt).

As per claim 4, Jackowski et al teach a method of tracing a transmission of data over a computer network comprising:

- detecting a transport-layer request to transmit an input/output packet (column 4, lines 58-60, interceptor detects transmission or receipt of packets);
- searching the input/output packet to determine an identity of a process that created the input/output packet (column 14, lines 27-31; column 10, lines 55-67, the packet is analyzed and classified by the application-classifier); and
- storing in a trace log an entry representing the request, wherein the entry comprises the identity of the process, and wherein the trace log is accessible to determine a volume of data being transmitted over the network (column 14, lines 27-33; column 11, lines 20-28).

As per claim 5, Jackowski et al teach the method of claim 4, further comprising:

- detecting an acknowledgment of the transmission (column 5, lines 36-41); and
- in response to the detection of the acknowledgment, storing in the trace log an entry representing the completion of the transmission (column 10, lines 15-22).

As per claim 6, Jackowski et al teach a method of tracing a receipt of data from a computer network comprising:

- detecting a transport-layer request to transmit a packet for an input/output connection to a port (column 4, lines 58-60, interceptor detects transmission or receipt of packets);

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- searching the packet to determine an identity of a process that created the packet (column 14, lines 27-31; column 10, lines 55-67, the packet is analyzed and classified by the application-classifier); and
- in response to the detection of a receipt of data at the storing in a trace log an entry representing the receipt of the data (column 4, lines 58-60, interceptor detects transmission or receipt of packets), wherein the entry comprises the process identification (column 10, lines 55-67), and wherein the trace log is accessible to determine a volume of the data being transmitted over the network (column 5, 55-58; column 11, lines 25-30; column 12, lines 61-67).

As per claim 7, Jackowski et al teach the method of claim 6, further comprising:

- creating a connection object representing the opening of the port connection by the process (column 11, lines 20-28; column 12, lines 44-60);
- copying the process identification from the connection object into a transport control block associated with the port (column 11, lines 20-28; column 12, lines 44-60); and
- in response to the detection of data at the port, copying the process identification into the trace log (column 11, lines 20-28; column 12, lines 44-60).

As per claim 8, Jackowski et al teach the method of claim 7, further comprising: copying the process identification from the connection object into the transport control block so that the process identification is contiguous with the rest of the data in the transport control block (column 10, lines 55-67).

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As per claim 9, Jackowski et al teach the method of claim 8, further comprising:

- detecting the presence of an input/output request packet indicating that the data receipt is complete (column 5, lines 36-41; column 10, lines 15-22); and
- in response to the detection of the completion input/output request packet, making an entry representing the receipt of the data into the trace log (column 5, lines 36-41; column 10, lines 15-22).

As per claim 10, Jackowski et al teach a facility for tracing data traffic on a network, the facility comprising:

- an identifying means for identifying a process causing a transport-layer request to transmit data via the network (column 10, lines 55-67); and
- a logging means in communication with the identifying means for logging the event, wherein the event comprises the identification of the process (column 5, lines 44-47) and wherein the logging means is useable to determine a volume of data traveling over the network (column 5, lines 55-58).

As per claim 11, Jackowski et al teach the apparatus of claim 10 wherein the identifying means further comprises means for communicating with a transport layer of a protocol stack (column 9, lines 9-12).

As per claim 12, Jackowski et al teach a computer-readable medium having stored thereon computer-executable instructions for performing steps comprising:

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- at the transport layer of a protocol stack residing on a first device in the network (column 9, lines 9-12), detecting a transmission or receipt of data to or from a second device on the network (column 4, lines 58-60, interceptor detects transmission or receipt of packets); and
- in response to the transmission or receipt being detected, recording the transmission or receipt as an entry in a trace log (column 9, lines 3-5, tables of events are stored by consolidator; column 5, lines 26-41, send-complete and receive-complete messages are stored), wherein the trace log is accessible to determine the volume of data traveling over a network (column 5, 55-58; column 11, lines 25-30; column 12, lines 61-67)..

As per claim 13, Jackowski et al teach the computer-readable medium of claim 12, wherein the protocol stack is a TCP/IP stack (column 9, lines 9-12).

As per claim 14, Jackowski et al teach the computer-readable medium of claim 12, having further computer executable instructions for performing the step of detecting the presence of an input/output packet representing the transmission or receipt (column 4, lines 58-60, interceptor detects transmission or receipt).

As per claim 15, Jackowski et al teach a computer-readable medium having stored thereon computer-executable instructions for performing steps comprising:

- detecting a transport-layer request to transmit an input/output packet (column 4, lines 58-60, interceptor detects transmission or receipt of packets);

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- searching the input/output packet to determine an identity of a process that created the input/output packet (column 14, lines 27-31; column 10, lines 55-67, the packet is analyzed and classified by the application-classifier); and
- storing in a trace log an entry representing the request, wherein the entry comprises the identity of the process, and wherein the trace log is accessible to determine a volume of data being transmitted over the network (column 14, lines 27-33; column 11, lines 20-28)..

As per claim 16, Jackowski et al teach the computer-readable medium of claim 15, having further computer executable instructions for performing the step of detecting the presence of the input/output packet at the transport layer of a protocol stack (column 4, lines 58-60, interceptor detects transmission or receipt of packets).

As per claim 17, Jackowski et al teach the computer-readable medium of claim 15, having further computer executable instructions for performing the step of

- detecting an acknowledgment of the transmission (column 5, lines 36-41); and
- in response to the detection of the acknowledgment, storing in the trace log an entry representing the completion of the transmission (column 10, lines 15-22).

As per claim 18, Jackowski et al teach a computer-readable medium having stored thereon computer-executable instructions for performing the steps comprising:

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- detecting a transport layer request to transmit a packet for an input-output connection to a port (column 4, lines 58-60, interceptor detects transmission or receipt of packets);;
- searching the packet to determine an identity of a process that created the: packet (column 14, lines 27-31; column 10, lines 55-67, the packet is analyzed and classified by the application-classifier); and
- in response to the detection of a receipt of data at the storing in a trace log an entry representing the receipt of the data (column 4, lines 58-60, interceptor detects transmission or receipt of packets), wherein the entry comprises the process identification (column 10, lines 55-67), and wherein the trace log is accessible to determine a volume of the data being transmitted over the network (column 5, 55-58; column 11, lines 25-30; column 12, lines 61-67).

As per claim 19, Jackowski et al teach the computer-readable medium of claim 18, having further computer executable instructions for performing the steps of:

- creating a connection object representing the opening of the port connection by the process (column 11, lines 20-28; column 12, lines 44-60);
- copying the process identification from the connection object into a transport control block associated with the port (column 11, lines 20-28; column 12, lines 44-60); and
- in response to the detection of the receipt of data at the port, copying the process identification into the trace log (column 11, lines 20-28; column 12, lines 44-60).

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As per claim 20, Jackowski et al teach the computer-readable medium of claim 18, having further computer executable instructions for performing the step of copying the process identification from the connection object into the transport control block so that the process identification, is contiguous with the rest of the data in the transport control block (column 10, lines 55-67).

As per claim 21, Jackowski et al teach the computer-readable medium of claim 18, having further computer executable instructions for performing the steps of:

- detecting the presence of an input/output request packet indicating that the data receipt is complete (column 5, lines 36-41); and
- in response to the detection of the completion input/output request packet, storing in the trace log an entry representing the receipt of the data (column 10, lines 15-22).

As per claim 22, Jackowski et al teach the method of claim 1, wherein the transmission of data is recorded at the completion of the transmission indicated by an acknowledgement from the first device (column 5, lines 36-41; column 10, lines 15-22).

As per claim 24, Jackowski et al teach the method of claim 4, wherein the entity, of the process includes a port number or an IP address relating to the transmission (column 5, lines 51-54).

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Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shabana Qureshi whose telephone number is (571) 272-3990. The examiner can normally be reached on Monday - Thursday, 9:30 am to 6:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hosain T. Alam can be reached on (571) 272-3978. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Shabana Qureshi
Examiner
Art Unit 2155

February 3, 2005
SQ


HOSAIN ALAM
SUPERVISORY PATENT EXAMINER